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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/321,766	05/28/1999	AWADHESH K. MISHRA	28069-503001US	7018
30623	7590	03/20/2012		
MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C			EXAMINER	
ONE FINANCIAL CENTER			FAY, ZOHREH A	
BOSTON, MA 02111				
ART UNIT		PAPER NUMBER		
1627				
MAIL DATE		DELIVERY MODE		
03/20/2012		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

09/321,766

**Applicant(s)**

MISHRA, AWADHESH K.

**Examiner**

ZOHREH FAY

**Art Unit**

1627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2012.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 21-24, 28-38, 40-42, 46, 48-54, 56, 57, 63-66 and 68-75 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 21-24, 28-38, 40-42, 46, 48-54, 56, 57, 63-66 and 68-75 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

Claims 21-42, 46-54, 56, 57, 63-66 and 68-75 are presented for examination.

The amendments and remarks filed on have been received and entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21-24, 28-38, 40-42, 46, 48-54, 56, 57, 63-66 and 68-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (U.S. Patent 5,858,410) and Anderson et al. (5,739,152).

Muller et al. teach a nanosuspension comprising 0.001-30% lecithin (claims 1, 13, 15), the compounds, polyvinyl alcohol, ploxamer, glucose, mannose trehalose and sorbitol at 0.1-2% (claims 1-22) and 0.1-30% (claims 1, 7). Parental, intramuscular, and subcutaneous administration is disclosed (column 6, line 61, column 9, line 33). Antimycotic, corticoid and immune therapeutics such as cyclosporine are specified (claims 39, 48). Autoclaving is disclosed (figures 13, 14). Anderson et al. teach autoclaving a dispersion of active agent under nitrogen to get a composition, which is stable. (Column 6, line 64- column 7, line 9). It would have been obvious to a person skilled in the art to improve the stability of the Muller et al. suspension by autoclaving under nitrogen in view of Anderson et al.

One skilled in the art would have been motivated to combine the teachings of the above references, since one relates to the use of the claimed active ingredients in combination with phospholipids, polyvinyl alcohol, polxamer, glucose, manose, trehalose and sorbitol in a pharmaceutical formulation, which are autoclaved, and the other relates to autoclaving as a mean of stabilizing pharmaceutical formulations. The determination of optimum proportions or amounts is considered to be within the skill of the artisan.

Applicant's arguments and remarks have been carefully considered, but are not deemed to be persuasive. Applicant in his remarks argues that the newly added claims

use the specific hydroxyl thermoprotectant agents, such as trehalose and phospholipid surface modifiers, such as egg phospholipid, soy phospholipid or lipid E80. The arguments have been noted. It is the examiner's position that Muller et al. teach the use of trehalose in a pharmaceutical formulation in combination with a lecithin. Applicant is reminded that lecithin is an egg phospholipid. Autoclaving is taught in Fig 13 of Muller et al. Anderson is cited to teach autoclaving under nitrogen gas in order to obtain a composition, which is stable. Applicant in his remarks further argues the addition of surfactants in the Muller's composition in order to increase the viscosity, in comparison with the claimed composition, which does not have any surfactants. Applicant submits article by Lawrence et al., to show that tween 80 based microemulsions are not suitable for autoclaving. The arguments have been noted. Applicant is reminded that Muller was published before the filing of the instant application uses autoclaving as a mean of sterilization for a microemulsions having tween 80, and does not address any instability. Furthermore, applicant's claims are not drawn to any specific viscosity. Applicant in his remarks also argues that Muller does not teach or exemplify a nano-suspension stabilized against particle size growth other than those containing tween 80 and mannitol. It is the examiner's position that Muller teaches a poorly soluble pharmaceutical active agent in combination with a phospholipid and a polyhydroxy thermoprotecting agent. Such combination has also been claimed by the instant application. Anderson was used to only show autoclaving under nitrogen for the pharmaceutical compositions is considered to be old and well known. Applicant also refers to example 12 of Muller to show the unpredictability of

adding surfactants on stability of nano- particles. It is the examiner's position that example 12 teaches the lower amounts of surfactants are better in creating a more stable composition. However such example does not teach the lack of surfactants.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZOHREH A. FAY whose telephone number is (571)272-0573. The examiner can normally be reached on Monday to Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZF  
/Zohreh A Fay/  
Primary Examiner, Art Unit 1627